5

10

15

30

What is claimed is:

1. A motor actuation device for actuating an actuated section by a motor, said motor having a rotary shaft to which a worm gear is fixed, a rotation of said worm gear is transmitted through a worm wheel to said actuated section, said motor actuation device comprising:

a first spur gear fixed to said rotary shaft of the motor; an idle gear being meshed with said first spur gear;

a second spur gear being meshed with said idle gear;

an impeller rotating with said second spur gear, said impeller has a plural of blades which are disposed at a same interval;

a photo sensor for detecting said blade, said photo sensor generating a pulse to calculate an amount of the rotation of said rotary shaft of the motor.

- 2. A motor actuation device according to claim 1, wherein said first spur gear is integrally formed with said worm gear.
- 3. A motor actuation device according to claim 2, wherein a diameter of said first spur gear is smaller than that of said worm gear.
- 4. A motor actuation device according to claim 3, wherein said second spur gear is integrally formed with said impeller.
 - 5. A motor actuation device according to claim 4, wherein said first spur gear and said second spur gear have a same number of teeth.

6. A motor actuation device according to claim 5, wherein

said photo sensor is a photo interrupter.

- 7. A motor actuation device according to claim 6, wherein a spur gear portion is integrally formed with said worm wheel, a rotation caused by said motor is transmitted through said spur gear portion to said actuated section.
- 8. A motor actuation device according to claim 7, wherein a diameter of said spur gear portion is smaller than that of said worm wheel.
 - 9. A motor actuation device according to claim 8, wherein said actuated section is a lens moving mechanism.

15

5